ABSTRACT
        The collection of projects and exercises is designed
to acquaint students with some practical applications of mathematics.
The exercises are of varying length, and are oriented about the
following topics and projects: home landscaping; architectural home
planning; construction; home food production; personal income;
banking; spending (budgeting, catalog shopping, home furnishing,
comparative home shopping, and quantity purchasing); vacation
planning; and opinion polling. (PR)

YOU

AND THE WORK WORLD

OF MATH

Packets of Mathematics

with Career Orientation

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YOU

and the Work World

of Math

A Career Orientation

Packets of Mathematics
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VIEW

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YOU

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YOU

and Architectural Home Planning

"Improving Your Home"

Related

Occupational Information

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"Improving Your Home"

Cluster 11   SCIENCE, ENVIRONMENT, & ENGINEERING

   Architect   DOT   001.081

   An architect plans and designs many types of buildings. It is
the architect's job to make them safe, useful, and beautiful. An
architect must follow certain laws when drawing a building to be
sure it is very safe and strong.

Prerequisite: Area Multiplication of Fractions

Improving Your Home

In order to construct a house or a building, the construction workers need to follow a plan--called a floor plan. Do you know who draws these plans? _____ That's right, an architect draws the plans for a building. An architect is concerned with more than just the placement of rooms. He must deal with lighting, heating, water connections and electrical hook-ups.

In this packet you will be working with just room sizes and the arrangement of rooms. We will leave the more complex things for another time. In this packet you will use the given floor plan to find out information that will help you carpet some of the rooms and paint some of the rooms. A scale drawing of the house is given. It would take too much paper and it would be too impractical to have a drawing which would be the exact size of the building. For the following plan, one centimeter will represent four feet. One half centimeter would represent how many feet? The answer is two feet.

Before looking at the floor plan, measure the following lines. Then tell how many feet each line represents. Remember, one centimeter means four feet.

a. _____ feet

b. _____ feet

c. _____ feet

d. _____ feet

Back
Door

Kitchen   Dining   Bedroom   Bedroom
                Room   #1   #2

Utility
Room

                                              Bathroom

Family   Front   Master
Room   Door   Bedroom

                      Living
                      Room

7
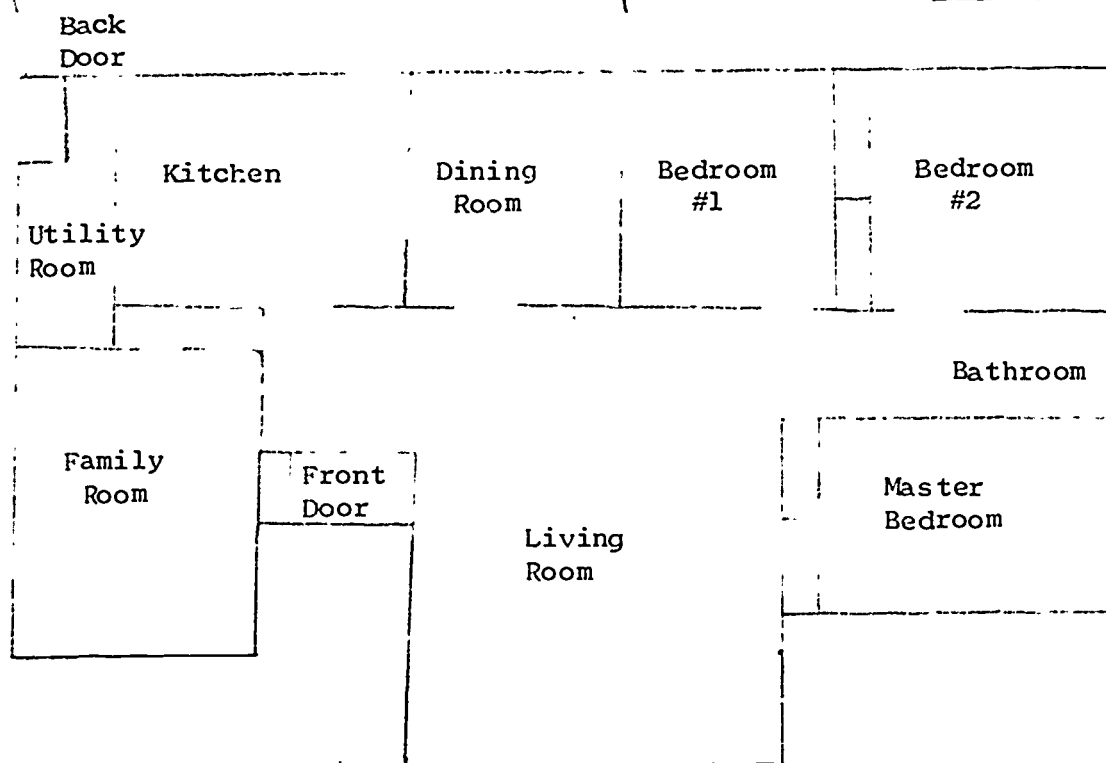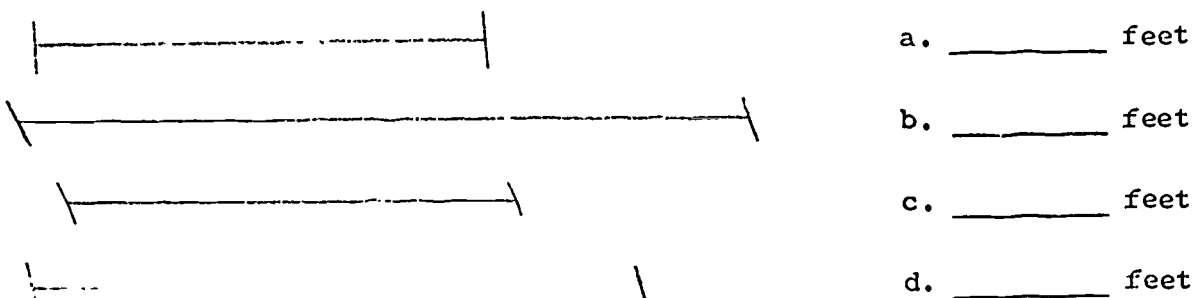
Answer the following using the diagram: .

1. What are the dimensions of the master bedroom? (Don't count the closet.) _____

2. If you wanted to buy some carpet for the master bedroom, you would need to figure the area of the room in square yards, since one must buy carpet by the square yard.

   The dimensions of the master bedroom are 16' x 12'. These dimensions must be changed to yards. How many square yards of carpet is needed? _____ Show how you arrived at your answer.

3. What are the dimensions of bedroom #1? _____ If you wanted to carpet that bedroom, how many yards of carpet would it take? _____ The owner of the home found some beautiful carpet for this room. If the carpet sold for $8.50 a square yard, how much would it cost to carpet the room with this rubber-backed carpet? _____

4. If you wanted to carpet the family room, how many square yards of carpet would be required? _____

5. Figure out how many square yards of carpet would be needed to carpet the kitchen.

6. If you wanted to use the same carpeting in both the kitchen and family room, which room would be more expensive to carpet?

   _____

7. How much would it cost to carpet the family room, if the carpet cost $9.00 a square yard? _____

8. Suppose you wanted to paint the ceiling of the dining room white. How many square feet of ceiling would need to be painted? _____ _____ Contact your paint dealer to help you figure the amount of paint you need to paint the ceiling. How many quarts would be required.

9. Would a quart of paint be enough to paint the ceiling of the bathroom? _____ If the pint of paint cost $1.59, how much would it cost to buy the paint needed for the bathroom? (It is impractical to buy less than one pint of paint.)

   Clue! You may want to call the man at the paint shop to get information to help you on this part of the project!

YOU

and the Work World

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YOU

and Home Landscaping

"Lawns & Yards"

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Related

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to Accompany

YOU and Home Landscaping

"Lawns & Yards"

Cluster 11   SCIENCE, ENVIRONMENT, & ENGINEERING

Draftsperson   DOT   .281

A draftsperson takes drawings and ideas and makes them into
complete working plans for building many things. A civil draftsperson
designs bridges, roads, and tunnels. A mechancial draftsperson
draws many kinds of machines.

Landscape Architect   DOT 019.081

A landscape architect makes land areas pretty and useful. They
plan, design, and arrange parks, highways, school yards, college
campuses, and yards for houses. They may plan where trees, bushes,
shrubs, ponds, and sidewalks should go.

Prerequisite: Perimeter and Area

Lawns and Yards

In large cities many people live in huge apartment buildings, so they have no lawn or yard. In South Dakota, most people have a lawn and yard. In this packet you will be figuring out some things about lawns and yards.

Look at the following diagram. It is a scale drawing of a person's lot. E ch centimeter represents 5 feet. For instance, if a line is 6 centimeters in length, it would represent 30 feet. How many feet would a line 10 centimeters in length represent? _____
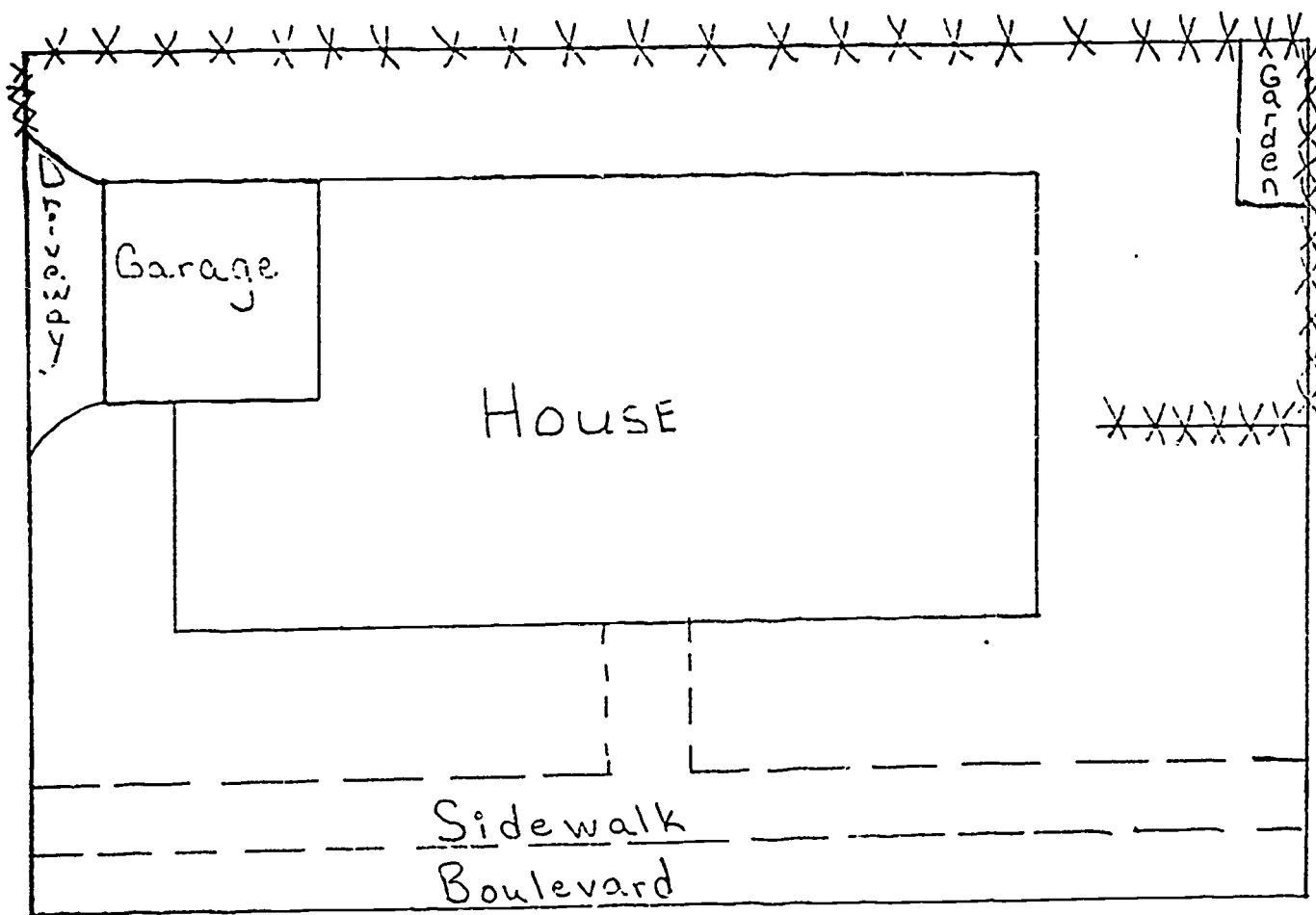
Answer the following question referring to the diagram.

1. List the dimensions of the lot. _____ If you wanted to run around the edge of your lot to get some exercise, how far would you run each time you went around the lot? _____ feet. To run one thousand feet, would you need to run more than 6 times around? _____ To run a mile (5,280 feet), you would need to run around the lot how many times? _____

2. What are the dimensions of the garden? _____

3. How wide is the sidewalk? _____ .

4. What are the dimensions of the garage? _____

5. The owner of this property wants to fence in part of the lot. The "X"'s on the diagram show where the fence will be. How long will the fence be? _____ Go to a lumber yard or to Montgomery Wards or J.C. Penney's or to a hardware store and pick out the kind of fence you would put up. Write a short description of the type of fence you would use.

   How much does this fence cost for a yard length of it?_____ .
   What would be the cost to put up the fence shown in the diagram?_____

6. For some reason the grass in the boulevard did not grow. The owner hauled in some new dirt. He is going to fertilize and plant new grass seed. It is your job to buy the seed and fertilizer. You will need to figure out the area of the boulevard so you will know how much grass seed to buy. What is the area of the boulevard? _____ square feet. Now, go to a lawn store or hardware store. Look for grass seed. Which store(s) did you go to? _____ Write out the name of the grass seed you would buy. _____ How much would it cost you to get enough for the boulevard? _____ What brand of fertilizer would you buy? _____ To fertilize the boulevard, how much would it cost? _____ How much would you have spent to buy both the fertilizer and lawn seed? _____

7. To keep children from running into the garden the owner put up a picket fence around the two sides of the garden which weren't already fenced in. If the picket fence comes in 2 1/2 foot sections, how many sections would be needed? _____ If each section sells for $.89, what would it cost to buy the needed fence? _____

8. To keep the lawn looking better, the owner edges along both sides of the sidewalk. How many feet does he need to edge? _____ If he can edge 25 feet in a 1/2 hour, would it take him more than 4 hours to do the work? _____

   It may surprise you that math can even help you in doing your lawn and garden work.

YOU

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and Construction as a

Hobby

"Building a Birdhouse"

Construction

Related

Occupational Information

to Accompany

"Building a Birdhouse"

Situation:

If it were impossible for you to contruct a birdhouse, and you
wanted one, you would probably purchase one in a store or order one
made by a carpenter.

Cluster 12   TRADES

   Carpenter

   A carpenter uses wood to build many things like houses, cabinets,
and boat docks. One works with saws, hammers, nails, screws, glue, and
many other things. Some carpenters work on the outside of house making
the framework. Others work inside the house putting on trim, doors,
and windows.

Building a Birdhouse

Has anyone ever called you a "birdbrain"? Don't feel bad, everyone acts like a bird sometimes. For this project you will contruct a birdhouse. You can use scrap lumber from a lumber yard or just scraps of wood you have at home.

The following are diagrams of two views of the birdhouse.

Side View

Front View

Roof

Front Side
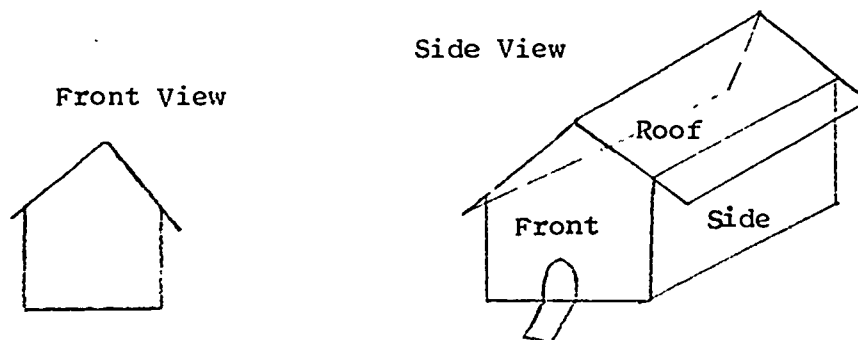
The following are diagrams of the different walls of the house.

Floor &
Roof
(Need 3)

2/3'

$\frac{1}{2}$'

2/3'

$\frac{1}{3}$'

1/2'

$\frac{1}{2}$'

Side--(Need 2)
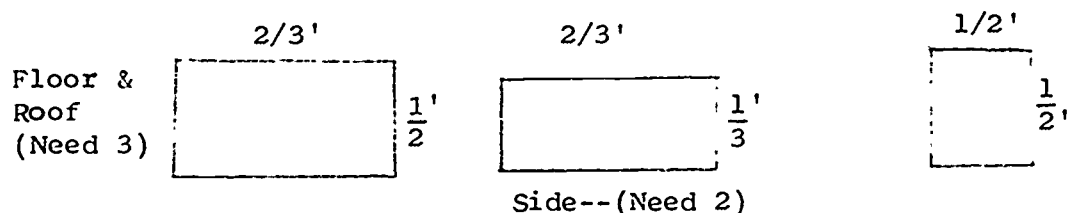
Use the following steps as you build the birdhouse:

1. Cut the boards needed for the house. Seven boards will be needed in all.

2. Cut the front and back boards as shown below in the diagram.

   1/4' 1/4'

   $\frac{1}{2}$'

   $\frac{1}{2}$'

   Cut off the shaded

   1/2'
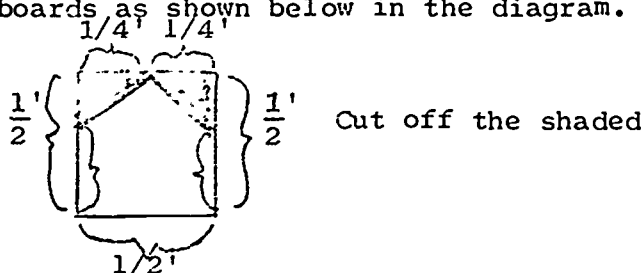
3. Cut a U-shaped door in the front wall. The door should not be more than ¼' high or 1/6' wide.

4. Assemble the house, using small nails to hold the sides together. Be sure you use the proper board in the right place. Don't use one of the roof boards as a side board.

5. Attach a popsicle stick or small twig to the bottom front of house to be used as a perch for the bird.

6. Sand the birdhouse slightly, using sandpaper.

7. Paint the birdhouse using whatever color of paint you desire.

Problems:

1. How much lumber would it take for the two sides? _____

2. How much lumber would it take for the floor? _____

3. To build the roof, how much wood would be needed? (Remember there are two pieces of wood for the roof.) _____

4. How much lumber would it take for the front and back walls? (Do not worry about the corners that were cut off the front and the back walls. Pretend they were not even cut off.) _____

5. Now that you know how much lumber you needed for each part of the house, answer the following question. If you were to go to the lumber yard and buy a 2' x 2' piece of 1/18" plywood, would that be enough wood to build the birdhouse? _____

6. How much more wood is needed to build the roof than to build the two sides? (Refer to numbers 3 and 1 above). _____

YOU

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YOU

and Home Food Production

"Let's Make a Dessert"

Related

Occupational Information

to Accompany

"Let's Make a Dessert!"

Situation:

If it were impossible for you to understand cooking measurements you would probably have your desserts catered by a bakery.

Cluster 8   PERSONAL SERVICE

Baker   DOT 526.781

A baker may own a bakery or may work for a big company. A baker mixes and bakes bread, rolls, cakes, and cookies. One may decorate special cakes and cookies. Sometimes a baker has helpers who wash bowls and tools, wait on customers, and operate the mixing machines.

Let's Make a Dessert!

Suppose you are planning dessert for 12 people and you are going to use the following recipe. Show how you would alter the measures to make the recipe large enough to yield 12 servings.

Note: Key for abbreviations for measures:

        c.   cup
        pts. pints
        t.   teaspoon
        T.   Tablespoon
        qt.   quart

The recipe is:

Blueberry Crunch

2 pts. blueberries (washed and stemmed)
1 c. sugar
¼ c. all-purpose flour
1 t. cinnamon
¼ t. salt
2 T. lemon juice
2 c. plain 100% natural cereal
½ c. margarine (melted)

Preheat oven to 350°.
Combine blueberries, sugar, flour, cinnamon, salt, and lemmon juice in a large bowl; toss lightly to mix. Spoon into a 1½ qt. shallow baking dish. Mix cereal and margarine in a medium bowl. Sprinkle over blue- berry mixture. Bake 40 minutes, or until juices bubble up and topping is toasted. Serve warm or cold with cream. <u>Yield:</u> 6 servings

I. Rewrite the recipe to yield 12 servings.

Now that you have rewritten the recipe, increasing the portions of the ingredients, how much did you increase the portions? _____

How long will you bake the dessert after revising the recipe?
_____

Now bake this yummy dessert. Good Luck! and Good Eating!

Try this recipe for another tasty dessert or lunch break.
This recipe serves eight, but, for your project, you will increase the
amounts of the ingredients so it will serve twelve.

The recipe is:

Green Apple Cake

1 c. sugar   1 c. raw apples (chopped)
½ c. shortening (You may use Crisco or Spry)   1 c. dates (cut fine)
1 egg   ½ c. nutmeats (chopped)
½ c. coffee (cooked)
1 t. soda
1 t. cinnamon
¼ t. cloves
½ t. nutmeg
¼ t. salt
1 t. vanilla

Measure and sift together flour, soda, cinnamon, cloves, nutmeg,
salt. Set aside.
Next, mix the sugar and shortening. Add the egg and mix until well
blended.
Add the apples, dates, and nuts and mix well. Pour this into an
8" x 12" greased and floured pan. Bake in an 350^{0} oven for 50 minutes or
until the center of the cake is firm to the touch. Now, call in some
friends and enjoy a delicious treat. Good Luck!

Answer the following questions.

1. How much did you increase the portions? _____

2. What mathematic process did you use to increase the measures?
   _____

3. Will you increase the baking time like you did the amounts of
   the ingredients to make a larger cake? _____

YOU

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YOU

and Your Bank

"Checking Accounts"
"Savings Accounts"

Related

Occupational Information

to Accompany

"Getting Paid"

Cluster 2   BUSINESS, MARKETING & OFFICE OCCUPATIONS

Bank Teller   DOT 212.368

Bank tellers work in a bank and help people who come in
to make deposits, cash checks, or take out some money. They must
keep very exact records of the money that comes in and out, so
customers know just how much money they have.

Getting Paid

When you get older, you will have a job. Every week or month you
will receive a check. If you look carefully at the amount of your check,
you will discover it is less than you really earned. Before we discuss
why that is true, let's find out how you can figure out how much you
earn each week. The amount a person earns without anything taken out of
your wages is called the gross salary.

When a payroll clerk decides how much a person who is paid by the hour earns per week in gross pay, the clerk must have the following information at hand:

a. Total hours worked for the week
b. A person's hourly rate

After these facts are established, the total number of hours worked should be multiplied by the hourly rate to find the gross pay.

EX: Jim Mattson works 40 hours per week. His hourly rate is $2.25 per hour. What would his gross pay be for the week?

$$\begin{array}{r} \$\ 2.25 \text{ per hour} \\ \times\ 40 \\ \hline 000 \\ 900 \\ \hline \end{array}$$

$90.00 per week (gross pay)

*   *   *   *   *   *   *   *   *   *   *   *

Work the following problems by multiplying the hourly rate times the total hours worked per week. Use the first problem as an example.

Problem A.	Problem B.
Max works 40 hours per week, and earns $ 3.00 per hour.	Jane works 35 hours per week, and earns $2.00 per hour.

Problem A.

$$\begin{array}{r} \$\ 3.00 \text{ per hour} \\ 40 \text{ hours per week} \\ \hline 0\ 00 \\ 120\ 0 \\ \hline \end{array}$$

$120.00 per week (gross)

A PAYROLL CLERK'S WORK

Pretend that you are a payroll clerk and it is your work to figure gross pay. Please be careful and avoid mistakes.

DAYS AND HOURS	PAY PER HOUR	GROSS EARNINGS
Monday to Wednesday		
8 hrs. per day Thursday 7 hrs. Saturday 4 hours	$2.25 per hour	$_____
Monday to Friday		
8 hrs. per day 4 hrs. Saturday	$2.75 per hour	$_____
Monday to Friday		
8:00 - 5:00 hour out for lunch	$2.90 per hour	$_____
Monday to Friday		
8 hour day	$3.10 per hour	$_____

TRY MAKING A PAYROLL YOURSELF HERE
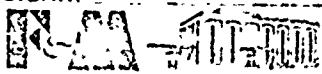
DAYS AND HOURS	PAY PER HOUR	GROSS EARNINGS

YOUR PAYCHECK

It will not be many years before you are earning your own money, and supporting yourself. You will be paying for everything which your parents have paid for before.

The wages you will receive for your work will probably be in the form of a paycheck. Your check might look like this:

WATERTOWN. N. S. DAK. _____ 19____ NO._____

$\dfrac{78-873}{914}$

FARMERS AND MERCHANTS BANK AND TRUST OF WATERTOWN, SOUTH DAKOTA

PAY TO THE
ORDER OF_____ $_____

_____ DOLLARS
KNOW YOUR ENDORSER REQUIRE IDENTIFICATION

__ __
ACCOUNT NUMBER

⑆0914⑈0873⑆

One always receives _less_ in a paycheck than he/she earns. You will want to know why this is. It is because certain deductions are made from ones salary. Notice the labels on the entries below.

Gross Salary	Income Tax	Social Security	Insurance	Net Salary
Total money earned.	Money taken out to support government.	Money saved toward health insurance payment for when you are sick, or too old to earn.		Amount to take home after deductions.

26 26

Take this quiz to see if you understand how to figure your net pay.

QUIZ

1. The money that is taken out of your pay for taxes are called _____

   _____

2. The deductions that are taken out of your pay (mandatory deductions) are:

   1._____

   2._____

   3._____

3. The largest single deduction from your pay will be _____

   _____

4. To figure net pay we must _____ the total deductions from our _____.

5. To find our total deductions we must _____ all of the deductions together.

6. _____ pay is more than _____ pay.

7. The income tax is a tax on our _____.

8. Other deductions that we can elect to have taken out of our pay each week are: _____

   _____

9. F.I.C.A. is another name for _____

10. Another term for "net pay" is _____
****

   Write the meanings for the following:

Net pay _____

Gross pay _____

Deductions _____

Now that you are an expert on figuring net pay, ask one of your parents to show you his pay slip. Check to see if the net pay was figured correctly. Was the net pay figured correctly? _____
What is your opinion on the payroll deductions?

When you get a job, remember that you won't be able to spend as much as you have earned because of the deductions. When you stop to thing about having to pay the deductions, it is a way of forcing people to set aside money for expenses. When tax time comes people will be able to pay them since they have had to set aside some money each month. The same is true of social security. You are forced to pay social security (or F.I.C.A.) so that you will have some money saved when you retire.

Your Net Salary is often referred to as your take-home pay, It is the amount of money you have after all deductions are made from your Gross Salary.

Directions: Add all the figures in column 2, 3, 4 and deduct from the gross salary to arrive at your net salary or take-home pay.

1. Gross Salary	2. Income Tax	3. Social Security	4. Insurance	5. Net Salary or Take-Home Pay
$75.00	$13.50	$1.50	$ .39	_____
60.00	10.80	1.20	.31	_____
98.00	17.64	1.96	.60	_____
39.50	7.90	.78	.11	_____
100.00	18.00	2.00	.45	_____

Checking Account

We need to learn to use the bank. Someday we shall want to put our money in the bank and get it out as we need it. This we can do by opening a checking account. To do this we must put money in the bank. This is called making a deposit.

In this project you will learn to make out deposit slips, to write checks, to withdraw money from your account, and keep records of your account.

Study the following examples and follow directions, carefully doing the exercises.

Checking Account

Writing a check:

When you are completing a check, you should be most careful to write it accurately so that the bank will cash it. Use <u>ink</u>, and sign it the way you signed your bank signature card, so that they will be able to tell at the bank that you were the true writer of the checks on your account. This makes your checks <u>valid</u>.

WATERTOWN, S. DAK. _____ ② _____ 19____ No. ①

78-873 / 914

FARMERS AND MERCHANTS BANK AND TRUST OF WATERTOWN, SOUTH DAKOTA

PAY TO THE ORDER OF ③ _____ $ ④ _____

⑤ _____ DOLLARS

KNOW YOUR ENDORSER   REQUIRE IDENTIFICATION

__ — __ — __   ⑥ _____

ACCOUNT NUMBER

⑈:0914⑈0873⑈:

---

1. Check#
2. Complete date (Mo.-Day-Yr.)
3. Put in the name of the company or the person to whom you are writing the check.
4. Put in the amount of money. Like this--$5.42
5. Write out the amount of money. Like this--Five and 42/100.
   (Be sure that you start at the beginning of the line and spread out the entry so that no one can change it. You may need to use lines if the entry doesn't fill up the space.)
6. Sign your name on the signature card.

LOOK AT THE NUMBERS ON THE CHECK. THEY RELATE TO THE NUMBERS ON THE EXPLANATION ABOVE.

If there are no cents, one might write it several ways:

                    00/100   no/100

For $8.00, you might write: Eight and 00/100

                              Eight and no/100

Try writing out these:

    $9.00 . . . .

    $12.00 . . . .

Remember that the very last thing to write on the check is the signature
meaning your name. When one signs the signature card at the bank, it
should be signed just the way you are going to write it on your checks
so that the bank tellers may go to their file and find that your
written name of the ckeck matches the signature on the card. Practice
writing your name as you would on a signature card:

. . . .

This is how a check might look after it is written out in full:

WATERTOWN. S.DAK. _ _ _ _ _ _ 7-10 19 79 No. 195

FARMERS AND MERCHANTS BANK AND TRUST OF WATERTOWN, SOUTH DAKOTA

                                                    78-873
                                                    914

PAY TO THE
ORDER OF _Gerald Jones_____ $13.75____

_Thirteen and 75/100_____DOLLARS
   KNOW YOUR ENDORSER REQUIRE IDENTIFICATION

                              William Steiger

      ACCOUNT NUMBER

⑈0914⑈0873⑈

REMEMBER TO FILL UP THE WHOLE LINE FROM THE LEFT TO THE RIGHT SO THAT
NO ONE CAN CHANGE YOUR CHECK.

Practice writing numbers the way you would on a check. You are actually practicing filling out the #4 space as on the check on the page before this one. This should be written out in numbers always.

Example: $100.99

Remember to start your numbers immediately after the dollar sign.

1. Ten and twenty-five cents $. . . . .

2. Sixty dollars and no cents $. . . . .

3. Seventeen dollars and forty-five cents $. . . . .

4. Fifty-three dollars and fifty cents $. . . . .

5. Two hundred dollars and ninety-two cents $ . . . .

Next, let us practice writing out the money in words. The words one writes, must be the same as the numbers show. If I write $5.25 in words, it will look like this--something that combines words and numbers. Five and 25/100. In this part of the check, one is writing out the number of cents or the parts of one dollar. Fifty-five cents is written 55/100.

Instructions to students:

Write in words the following check amounts:

$ 23.55. . . . .

$ 10.60. . . . .

$ 28.69. . . . .

$ 5.09. . . . .

$275.75. . . . .

JUST IMAGINE

You are a man with a family and a home to support. Write the checks for your expenses.

1. Mr. M. Carlson, a furnace repair worker, fixed the furnace for $79.00. Write him a check.

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PAY TO THE
ORDER OF_____ $_____

_____DOLLARS

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2. Cook's Beauty Salon gives personal services. Your daughter makes public appearances in her work. She paid $19.36 to Cook's for a good permanent.

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ORDER OF_____ $_____

_____DOLLARS

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3. You hired a man to shovel your walks after a snowstorm, and paid him $2.25. Write him a check.

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PAY TO THE
ORDER OF_____ $_____

_____ DOLLARS

KNOW YOUR ENDORSER   REQUIRE IDENTIFICATION

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⑈0914⑈0873⑈

4. You needed new clothes to wear to your office. Write Williams Department Store a check for them for $69.97.

WATERTOWN, S. DAK 19 _ No. __

78-873
914

FARMERS AND MERCHANTS BANK AND TRUST OF WATERTOWN, SOUTH DAKOTA

PAY TO THE
ORDER OF_____ $_____
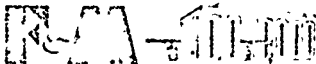
_____ DOLLARS

KNOW YOUR ENDORSER   REQUIRE IDENTIFICATION

ACCOUNT NUMBER

⑈0914⑈0873⑈

ENDORSING A CHECK

When you get a check from a company or from a person, you should
not hold it a long time, but cash it or deposit it in the bank.

When you cash a check, you need to turn it over, and place it
perpendicular to you as you put a signature on the side which would
be the left side of the check if it were lying horizontally on a
desk.

When you put your signature on it, your name should be written
exactly as it appears on the front of the check.

Here is a check written to John Doe:

WATERTOWN. S DAK   3. 15   1977 No. 195

                                                              78-873
                                                              914

FARMERS AND MERCHANTS BANK AND TRUST OF WATERTOWN, SOUTH DAKOTA

PAY TO THE
ORDER OF $55.00

_____ DOLLARS

        SIGN YOUR ENDORSEE REGULAR IDENTIFICATION

        ACCOUNT NUMBER

Keeping a Record

Another very important part of a checking account is keeping a record. For each check you write, you will keep a record. Your check book will have a record sheet like the following example:

CHECK NO	DATE	CHECK ISSUED TO	AMOUNT OF CHECK	√	DATE OF DEP	AMOUNT OF DEPOSIT	BALANCE

On this record sheet you put the same thing as you put on your check. There are three other things you will keep in this record. One is the amount of money you have in the bank. This is called the balance. You will, also, keep the amount you have added to your account along with the date you added it. This is the deposit to your balance in order to keep a record of the amount of money you have in the bank.

Each time you write a check you will subtract the amount of the check from the balance to obtain the new balance. You will know at all times how much money you have left in the bank.

Now enter each check you wrote in the above exercise in the checkbook record, being careful to include all the information asked for on the record sheet. Keep a current balance of your account.

The bank also keeps a record of your checks and deposits. Each month the bank will send you a copy of its record of your checking account. This is called a bank statement.

A Deposit Slip

When you get your check, you will probably put it into the bank for safe-keeping until you have to pay your bills. Then you will want to write checks on that account. This is the way a deposit slip looks.

CHECKING ACCOUNT DEPOSIT TICKET $\frac{78\text{-}873}{914}$

Name

Address

FARMERS & MERCHANTS BANK & TRUST
OF WATERTOWN, SOUTH DAKOTA 57201

DATE Mo. Day. Yr.	DOLLARS	CENTS
CURRENCY		
COIN		
CHECKS LIST EACH SEPARATELY		
List each		
check on		
a line and		
the amount		
of the check		
in its dollar		
and cents		
columns,		
Deposit.		
TOTAL FROM OTHER SIDE OR ATTACHED LIST		
TOTAL		

Checks and other items are received for
deposit subject to the terms and condi-
tions of this bank's collection agreement.

CHECKING ACCOUNT DEPOSIT TICKET $\frac{78\cdot873}{914}$

FARMERS & MERCHANTS BANK & TRUST
OF WATERTOWN, SOUTH DAKOTA 57201

DATE	DOLLARS	CENTS
CURRENCY		
COIN		
CHECKS LIST EACH SEPARATELY		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
TOTAL FROM OTHER SIDE OR ATTACHED LIST		
TOTAL		

Checks and other items are received for deposit subject to the terms and conditions of this bank's collection agreement

FARMERS & MERCHANTS BANK & TRUST
OF WATERTOWN, SOUTH DAKOTA 57201

DATE	DOLLARS	CENTS
CURRENCY		
COIN		
CHECKS LIST EACH SEPARATELY		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
TOTAL FROM OTHER SIDE OR ATTACHED LIST		
TOTAL		

Checks and other items are received for deposit subject to the terms and conditions of this bank's collection agreement

Complete the above deposit slip with the information herewith:

Cash	$50.00	
Checks	4.50	Jack Pody
	69.00	Art Jones
	101.23	Tom Jackson

Complete the above deposit slip using this information:

Cash	$145.23	
Checks	25.00	Jones Trucking
	69.72	Jim's Plumbing
	100.00	Ace Garage

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CHECKING ACCOUNT

Bank statements contain a record of your deposits into the checking account, and your withdrawls from the account.

At the top of the bank statement is the name of the bank and the name and address of the account holder.

Bank Statement

Matthew J. Wilson 9 Elm Street Danville, Illinois		In account with First National of Danville	

Checks	Deposits	Date	Balance
		Balance Brought Forward	$605.00
$100.00-		Jan. 2 '76	505.00*
50.00-		Jan. 3 '76	455.00*
	$250.00+	Jan. 8 '76	705.00*
24.00-		Jan. 9 '76	681.00*
10.00-		Jan. 11'76	671.00*
8.75-		Jan. 13'76	662.25*
100.00-	400.00-	Jan. 15'76	162.25*
18.50-	45.00+	Jan. 17'76	188.75*
14.25-		Jan. 19'76	174.50*
2.00-		Jan. 21'76	172.50*

On most real bank statements, the balance of an account like the one above may be influenced by service charges. These will appear on the statement as SC. The service charges cover many things such as:

    Keeping Money

    Keeping Record of Bank Account

    Furnishing Check Books

Smaller banks sometimes do not charge a service charge. They hope people will use the services of their bank because they do not charge. This makes some city people willing to bank in the smaller town, and helps the bank increase its total deposits.

When a person receives a check, he/she cashes it. At the end of the month the bank statement and cancelled checks, sometimes called vouchers, are mailed. If you were keeping a checking account, check book, at the same time, you would be keeping check stubs, which would be duplicate information about what was written on the checks. The cancelled checks and the stubs are compared, and tally with the Bank Statement.

Mini-Test

1. Review the checks in this section, and tell what three things
   you would write first on the checks you write.

   _____   _____   _____

2. Write two ways you would enter the amount of money for which
   the check is written.

   _____

   _____

3. What is the last thing you would put on a check?

   _____

4. How would you keep track of the checks you write?

   _____

   How does the bank keep a record of the checks it writes?

   _____

5. A service charge is _____

Mini-Test

1. Review the checks in this section, and tell what three things
    you would write first on the checks you write.

    _____   _____   _____

2. Write two ways you would enter the amount of money for which
    the check is written.

    _____

    _____

3. What is the last thing you would put on a check?

    _____

4. How would you keep track of the checks you write?

    _____

    How does the bank keep a record of the checks it writes?

    _____

5. A service charge is _____

Savings Account

Someday you will want to have a savings account in the bank. To have a savings account you must know how to fill our savings account deposit slips and withdrawal slips.

Complete the following exercises, following the directions given.

SAVINGS ACCOUNT

When you have a savings account at a bank or savings-in-loan, you deposit money in the account and the bank or savings-in-loan pay interest on the money. It is then recorded as money which one has deposited. It is often true that interest is paid on the money through the day of withdrawal as opposed to quarterly, paid every three months.

People who work in the loans department of the savings institution loan out money to borrowers who pay for the use of it. This is the money you and people like you have deposited. When the money is put into an account, it then becomes a deposit to a savings account in your name.

On the following pages you will be learning to fill out forms which are required to complete this procedure.

You will learn to make a deposit. You will, also, learn how to withdraw the money (take it out) when you need it.

DEPOSIT SLIP

John Jackson deposited some money in his savings account at the bank. His account number was 9,250, and he itemized the deposits carefully. He had $1.00 in bills, 85¢ in coin and a check, $25.49. This is the way he filled out his deposit slip.

Use this as a sample and fill out the deposit slips on the next page.

SAVINGS ACCOUNT

The balance of a savings account is the total money deposited minus
the money that has been withdrawn from the account.

Use this: d-w=b

Example: Jacob deposited $5.00 weekly for 10 weeks.   He withdrew $18.00
during the 10 weeks.

DEPOSITS	WITHDRAWAL
$ 5.00	$18.00
5.00	
5.00	
5.00	
5.00	Deposit-Withdrawal Balance
5.00	
5.00	
5.00	$50.00 total deposits
5.00	18.00 withdrawn
5.00	
$50.00 Total	$32.00 balance

Imagine that you deposited $6.00 each week for 7 weeks, and had withdrawn
$5.00.   Use the example above to help you and be careful that your deposits
and withdrawal get in the right column.

DEPOSITS   WITHDRAWAL

Deposit-Withdrawal = Balance

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SAVINGS ACCOUNT

A page from a passbook might be itemized something like the following;

Office   Watertown Junior High   . Account No._____

             In Acct. with_____

	DATE	WITHDRAWAL	DEPOSIT	INTEREST	BALANCE
1.	June 9 '75		$20.00		
2.	June 19'75		25.00		
3.	June 30'75		29.00		
4.	July 10'75		30.00		
5.	July 12'75	$5.00			
6.	July 5 '75		11.00		
7.	July 15'75		25.00		
8.	Aug. 3 '75		40.00		
9.	Aug. 10'75		20.00		
10.	Aug. 15'75		9.50		
11.	Aug. 25'75	6.75			
12.	Aug. 29'75		20.00		
13.	Aug. 31'75			$8.90	

Add all deposits and interest payments to find the account balance.
Then subtract every withdrawal after you have totaled them.

Work in the balance column and find the balance after each deposit,
withdrawal, and payment of interest. How well can you do?

SAVINGS ACCOUNT

Fill out these deposit slips:

1. Bills $75.00, Coin $.73;   Checks $7.50,   Passbook #7223

Z14-6 Re. 11-67

FOR BANK USE ONLY

Bank Number ___ 5-7

Teller Number ___ 8 9

Tran. Code ___ 10-11

Type or Control ___ 12

Passbook
Ending Balance
19 26

SAVINGS DEPOSIT TICKET

NAME _____

ADDRESS _____

DATE _____ ACCOUNT NUMBER _____
     1-4   13-18

Customer Sign Here
To Acknowledge
Receipt of Cash Returned

CHECKS	DOLLARS	Cents
COIN		
CURRENCY		
TOTAL		
LESS CASH RETURNED		
TOTAL TO BE DEPOSITED TO THE ACCOUNT		

27-34

2. Bills $50.00, Coin $.49;   Checks $12.00,   Passbook #2438

Z14-6 Re. 11-67

FOR BANK USE ONLY

Bank Number ___ 5-7

Teller Number ___ 8 9

Tran Code ___ 10-11

Type or Control ___ 12

Passbook
Ending Balance
19 26

SAVINGS DEPOSIT TICKET

NAME _____

ADDRESS _____

DATE _____ ACCOUNT NUMBER _____

Customer Sign Here
To Acknowledge
Receipt of Cash Returned

CHECKS	DOLLARS	Cents
COIN		
CURRENCY		
TOTAL		
LESS CASH RETURNED		
TOTAL TO BE DEPOSITED TO THE ACCOUNT		

27-34

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SAVINGS ACCOUNT

If you wish to take out money from your savings account, only you can do so. If you wish to deposit money, anyone can do this for you. In order to make a withdrawal, you must have your signature that matches the signature on your signature card written out on the slip.

SAVINGS ...

WATERTOWN ... DAK. .... 19...

... & TRUST

... CREDIT OF

Make up a fantasy withdrawal. Be sure the entire form is complete with an account #, a date, the amount in written and numeral form, the balance in the account, the signature, and address.

49

YOU

and the Work World

of Math

YOU

and Spending

* Setting Up A Budget
    "Budgeting"

* Catalog Shopping
    "Shop Without Going Shopping"

* Furnishing Your Home
    . "Furnishing a Kitchen"

* Comparative Home Shopping
    "Comparing Prices"

* Quantity Purchasing
    "Buying in Quantity"

YOU

and the Work World

of Math

You and Spending

"Setting Up A Budget"

Related

Occupational   Information

to Accompany

SETTING UP A BUDGET

If a person needed help in setting
up a budget, he would go to an
accountant, and pay for the services.

CLUSTER 2   BUSINESS, MARKETING & OFFICE OCCUPATIONS

Accountant   DOT 160.188

An accountant gathers information and puts it together
in reports for a business. One's job is to find out how much
money the business is making. One may work for a business,
for the government, or own a business.

BUDGETING

You will be working someday and earning money. If spending is planned, money can be used wisely. If it is not planned, it often seems to melt away, and one finds that there is nothing to show for having handled it. A budget helps one plan to spend income and meet expenses with it.

What is income? It is the salary you earn, the gifts you are given, or the interest you earn at the bank, or the dividends you get from owning stock in a company.

Expenses is what your every day living costs are such as purchasing clothing, paying for a place to live, buying food, and all the costs of whatever you need to pay for.

Let's try setting up a budget to plan how to spend your money. Imagine that you have the following income:

Salary.....................$50.00
Gift. 5.00

Use the following items for the expense side of your budget:

Savings	Room Rent
Clothing	Lunches
Transportation	Hobbies
Recreation	Other

You are ready to complete this budget form by filling in the income items and totaling them. When you have finished this, fill in the expenses, and total them.

Income	Expenses

Total $_____   Total $_____

Now that you realize the import of spending money wisely through a budget plan, you will know that one must follow the budget to make it a successful undertaking. Here is a problem to study to help you see how to budget...You are going to college and working summers full-time. You earn $50.00 per week gross pay. Decide how to spend it.

BE CAREFUL TO MAKE YOUR BUDGET BALANCE. USE THE SAME TOTALS ON EACH SIDE.
The item, "other expenses," will help you make it balance equally.

Income		Expenses	
Salary...............$_____		Lunches................$ _____	
		Bus Fare................. _____	
		Clothing................. _____	
		Recreation............... _____	
		Room Rent............... _____	
		Hobbies................. _____	
		Savings................. _____	
		Other................. _____	

Total	$	Total	$

1. Were you able to balance the budget?_____

2. Do you feel that you planned your spending wisely?_____ _____

3. How important were your "other expenses" item ?_____
_____

4. If you needed to cut your expenses, which would you leave out or
    change?_____

5. Reexamine the amount which you spend for recreation. Is it enough?

_____ A MONTH'S BUDGET _____

    Helen decided that she wanted to keep a budget for a month's trial
to see if she could keep her spending within the amount she planned.

BUDGET PLAN

BUDGET ENTRIES	ALLOWED	PAID OUT
Dues	$ 1.00	$ 1.00
Savings	5.00	5.00
Entertainment	2.25	3.00
Painting	3.25	3.25
Dinner	8.00	6.50
Clothing	6.00	10.00
Repay Loan	10.00	11.00
Bus	3.00	3.00
Totals		

1. How much did Helen allow herself in total money to spend?_____
2. What was the total amount which she paid out?_____
3. Did she stay within the total amount she allowed in her budget?_____
4. Compare each entry, and discover the changes which were made in the
    paid out column. List them._____
5. Did she keep more money than she expected to spend in the allowance
    column? If so, how much did she not spend?_____

Imagine that your parents set up a budget for one week, because your Father gets paid once a week. After all check deductions, your Dad makes $125. per week. He will set aside $30.00 for the Mortgage Payment, $10.00 Clothing, $4.00 Precreaction, $5.00 Savings, $20.00 for Insurance, $7.00 for Household bill, $10.00 for Miscellaneous, and $39.00 for Food. Place in the blanks the amount of money he will spend for each item listed and total the income and expenses.

BUDGET

INCOME	EXPENSES
Net Weekly Salary $125.00	Mortgage........._____
	Clothing........._____
	Recreation......_____
	Savings........._____
	Insurance......._____
	Household Bill.._____
	Miscellaneous..._____
	Food............_____
Total............................$_____	Total.........._____

1. Do you think the amount of money to be set aside for each expense item makes a good spending plan?_____
2. Is all of their spending planned here to the last penny? _____
3. How could one cut expenses in one or several items? _____
4. If one could cut expenses, where could it be done? _____

CLOTHING BUDGET

A clothing budget is very important. One must wear neat clothing that fits well to hold a good working position. People judge one's worth from appearance as well as by character and knowedge and skills.

1. Janet and Jack need to buy clothing. Janet had $15.00 she saved over a two week period. She needs to purchase a blouse that costs $8.50.
   (a) Decide how much money Janet saved each week for the two week period?

   _____

   (b) How much money will Janet have left to put in her next's week's clothing budget? _____
   (c) Do you think Janet has a good way of budgeting for clothes? _____

2. Jack decided he wanted to buy a topcoat costing $75.00. He decided that he would save $10.00 per week to get the money for the coat.

   (a) How many weeks would he have to save to get the money? _____

   (b) Would he have any money 'over? _____ . _____

   (c) If he would have money left over, how much would he have? _____

3. Janet needed a dress. It cost $45.00 and hosiery that cost $4.75. She planned to pay the store $10.00 per week until the clothes were paid for in full.

(a) How many weeks would it take her to pay for the clothing in full?

_____

(b) If she only purchased the dress and not the hosiery, how many weeks would it take? _____

4. Jack saved $24.00 for clothing over an 8 week period. He decided to buy 3 ties for $4.50 and 3 pairs of good socks for $3.00.

(a) How much would Jack's total clothing bill be? _____

(b) How much money did he save per week to have $24.00? _____

(c) How much money will he have left in his clothing budget? _____

BUDGETING FOR RECREATION

1. You know that hobbies and recreation are very important in a well-balanced life. Here is what your budget might look like:

          SEPTEMBER - $20.00 total planned
          Municipal Swimming Pool - 3 times at $ .50
          Movies   - 2 times at $1.00
          Golf   - 1 time at $1.50
          Snacks   - total money $5.25
          Electronics' Kit   - 1 kit at $7.50

(a) If this were your budget, how much did you spend on recreation for the month of September? _____

(b) Did you stay within the amount of money planned for budget use?

_____

(c) If you did, did you have any money left to treat your friends? _____

(d) If you had no friends to treat near your home, what else could you use the money for? _____

(e) Might you want to use some, and start a savings account with the rest? _____ How would you plan to do this?

2. Do you have an allowance for recreation? _____ If you do have, plan your recreational budget for a week. If you do not have, plan how you would spend $5.00 for recreation for a week. Think of the entertainment you enjoy the most, and plan for it.

(a) Entertainment   How Many Times?   Amt. of Money
                                                    $

_____   _____   _____

_____   _____   _____

_____   _____   _____

                              TOTAL $ _____

(b) Were you able to stay within the $5.00 per week? _____

YOU

and the Work World

of Math

Catalog Shopping

"Shop Without Going Shopping"

Prerequisite: Checking Account Packet

Shop Without Going Shopping

You have all seen a catalog. In fact, you probably have used a catalog, if only to sit on so you could sit higher in a chair. Now, you are going to use a catalog to buy one complete outfit of clothing for yourself. You will pay for these items with a check (found in the packet.)

1. Get a catalog from home, from a friend, or from a teacher. Look through the catalog and pick out one complete set of clothing including shoes, a jacket or coat, and a swim suit. Do not forget anything. Include socks, a belt, and a purse (if you are of the right sex.)

2. Fill out the order blank found at the end of this packet.

In box 1, put your correct name and address. In box 2, fill in your old address, if you have just moved to a new address. If you have not moved, leave box 2 blank. Since you will be paying by check, check the "cash" blank in the "Method of Payment" box. (A check is one form of cash.) Sign your name in that box. Since you will probably want the clothes sent to you at your home address leave the box entitled "Ship to Another Address" blank.

Now to the next section. Fill in the information on each item you buy. Follow the examples for the pair of denim jeans and shirt found below.

The denim baggy jean

D Here's the look to have: wide baggy legs, deep 2-inch cuffed cotton s...d topped w...h w...de belt loops. 2 front s... ...sh pockets, 2 back patch pockets. 100's cotton. Machine wash, warm, tumble dry. Navy only. Size chart on page 434.

Sizes: 8, 10, 12, 14, 16, 18, 20, 22. State size.
Ship. wts. ea.: slim, reg. 1 lb., husky 1 lb. 2 oz.

Z 33 B 9120 D—Slim. . . . Ea. 4.99; 2 for 9.80
Z 33 B 9121 D—Reg.   Ea. 4.99, 2 for 9.80
Z 33 B 9122 D—Husky... . Ea. 5.99, 2 for 11.80

Denim plaid knit shirt 3.59

E Checkerboard denim-look plaid is a great mate for jeans. Trimmed with tape neck and cuffs. Hem bottom to wear in or out. Pocket ...cotton. No ironing needed. Mach wash, warm, tumble dry.
Colors • 62 red denim • 73 navy denim
Sizes: 8, 10, 12, 14, 16, 18, 20. Size chart pg. 441.
Ship. wt. 6 oz. State color number and size.
B 33 B 6745.... ....Ea. 3.59

Give complete catalog number	How Many	Item	Color Number	Size	Price Each	Total Price	Ship wt lbs	oz
Z 33 B 9121 D	1	Denim Baggy Jean	---	22 Reg	4.99	4.99	1	2
B 33 B 6745	1	Plaid Knit Shirt	73	20	3.59	3.59		6

After you have completed the chart section of the form, find
the total cost and put it in the appropriate slot. Also, fill in
the total pounds and total ounces. Then fill in the total weight
in pounds. (Remember, 16 ounces equal one pound.) If you end up
with a fraction, put down the next highest whole number. For in-
stance, instead of writing 7¼ in the box write 8.

Sales tax is the next item to be figured. Look at the tax
chart. What is the sales tax rate in South Dakota?_____ That is
right, 4%. Since the tax is four percent, you must multiply the
total price for the goods by .04 (4% is the same as .04, as you
will learn later on in the year.) Do the required multiplication
to come up with the tax, after studying the following example. Let
us assume the total for goods is $32.16. To find the sales tax we
will multiply 32.16 by .04. When you multiply two numbers with
decimal points, first multiply the numbers together, ignoring the
decimal points.

Next, count the number of numbers to the right of the decimal point
in each factor Add these two numbers together. Let us look at our
example. In the first factor, there are two numbers to the right
of the decimal point. There are also two numbers to the right of
the decimal point in the second factor. Thus,there are a total of
4 numbers to the right of the decimal point. Now, start from the
left hand side of the product and count four places to the left.
The decimal point will fall between 1 and 2.
The number would then be 1.2864. Thus, the sales tax would
be $1.29. (Always round to the next highest number when you are
dealing with money.) Enter the tax you have figured on the line
provided.

The next item is postage. The following are two charts used
to figure postage. They are located on page 476 of the catalog.

Parcel Post Rate Table

Parcel post rates subject to change by U S Postal Service

Parcel Post Zone Table

To find your postal zone from St. Paul, compare the first 3 numbers of your zip code with numbers listed for your State. For example—if you live in Detroit Lakes, Minn. and your zip code is 56501, the first three (3) numbers 565 determine your parcel post zone. By referring to the chart below for Minnesota, you will find 565 is zone 3.

MINNESOTA	
Zip codes beginning	Zone
551	Local
565, 566, 567	3
All other	1 & 2

MICHIGAN	
Zip codes beginning	Zone
497	4
All other	3

WISCONSIN	
Zip codes beginning	Zone
540, 546, 547, 548	1 & 2
All other	3

IOWA	
Zip codes beginning	Zone
504, 505, 512, 513, 521	1 & 2
All other	3

NORTH DAKOTA	
Zip codes beginning	Zone
580, 581, 582, 584	3
All other	4

SOUTH DAKOTA	
Zip codes beginning	Zone
575, 576, 577	4
All other	3

MONTANA	
All Zone 5	

Look at the Parcel Post Zone Table to find the number of the zone for Watertown. To find the number of the zone, you need to find the zip code of Watertown. If you don't know Watertown's zip code, find it. By looking at the chart, in which zone is Watertown located?_____ Now, refer to the second chart on the parcel post rate table. Go down the left hand column until you find the line containing the total weight of your purchase. Find the amount of postage, by looking under the column headed "Zone 3". When you find the amount of postage, enter that number on the order blank.

Since this is your first order, the amount owed on previous cash orders is 0, so put a zero in that blank.

Now, add up the total for goods, tax, and postage to get the cash price. Enter that amount on the cash price line. Also enter it on the next line, which tells the amount of money included by check. Use the following check to pay for the order. Look back at the packet on checking accounts if you do not remember how to write a check.

183

78-973
914

19

PAY TO THE
ORDER OF $

                                                    DOLLARS

⑆091⑆⑆0873⑆ ⑈1⑆320⑆⑆

In some cities which have catalog stores, a person does not need to fill out an order blank. He can simply phone the catalog store and tell the catalog clerk what he wants to order. But, if a person lives in a smaller town where there is no catalog store, he cannot do this.

ORDER

Date_____

You save time and money by combining purchases in a single
order. Your postage cost is lower below the ordering form on these
same purchases, ordered separately. You may also save when
you combine your orders for small, unmeasurable merchandise
(Items with catalog numbers ending in "M" or "PMS"). Since the
truck and express company's charge is for a specific minimum
poundage, even if shipment weighs less, you can order additional
items (up to this minimum) with no increase in your
shipping cost. See opposite page for details.

PLEASE PRINT ALL INFORMATION

Name_____
 (first)   (middle)   (last)
Address_____
City_____State_____
ZIP code_____Phone_____

_____

Address_____
City_____
State_____ZIP code_____

GIVE COMPLETE CATALOG NUMBER Do you have a catalog number. It is the convenient way to specify the article.	HOW MANY	ITEM			PRICE EACH	TOTAL PRICE	SHIP WT. (full order each orders only) LBS OZ
							Total, Total lbs. oz.
Iowa..........................							
Michigan.....................							
Minnesota (except clothing)							Total wt. in lbs.
North Dakota*............4							
South Dakota*.............4							
Wisconsin..............4%						Order	16 oz = 1 lb. count any remaining oz.
*Add local tax, if applicable in your locality.							

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ORDER BLANK & CORRECTION-OF-ADDRESS NOTICE*

Date_____

You save time and money by combining purchases in a single order. Your postage cost generally will be lower than on the same purchases, ordered separately. You may also save when you combine your orders for large, unmailable merchandise. (Items with catalog numbers ending in "R" or "F".) Since the truck and express companies charge for a specific minimum poundage, even if shipment weighs less, you can order additional items (up to this minimum) with no increase in your shipping cost. See opposite page for details.

PLEASE PRINT ALL INFORMATION

Name_____
(first)   (middle)   (last)

Address_____

City_____State_____

ZIP code_____Phone_____

Address_____

City_____

_____ZIP code_____

☐ PLEASE OPEN AN ACCOUNT. I am submitting the completed application form on pages 479, 480.

☐ ADD TO MY CHARG-ALL ACCOUNT
My account number is_____

☐ CASH (check or money order enclosed)

☐ SPECIAL INSTRUCTIONS_____

This purchase is made at a time sale price, consisting of the cash sale price and a time price differential or finance charge and is subject to the terms and conditions of my Credit agreement with you.

SIGNATURE   (Sign full name as shown on your account)

PLEASE DO NOT WRITE IN THIS SPACE

Name_____

Address_____

City_____State_____

ZIP code_____Phone_____

GIVE COMPLETE CATALOG NUMBER. Do you have a credit account? It's the convenient way to shop. Check box above.	HOW MANY	ITEM	COLOR NUMBER	SIZE	PRICE EACH	TOTAL PRICE	SHIP WT. LBS	OZ

TOTAL FOR GOODS				Total lbs.	oz.
TAX					
POSTAGE				Total wt. in lbs.	
Owed on previous cash orders					
CASH PRICE					
AMOUNT ENCLOSED	Check, Money Order				
	Refund Drafts				

Iowa............................
Michigan........................
Minnesota (except clothing and clothing-type items) 4%
North Dakota....................
South Dakota....................
Wisconsin.......................4%
*Add local tax, if applicable in your locality.

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Related

Occupational Information

to Accompany

Furnishing Your Home

FURNISHING A KITCHEN

If you needed help in choosing furniture
or equipment for a home, you would go to
an Interior Decorator and pay for his/her
services.

INTERIOR DECORATOR   DOT 142.051

An interior decorator helps people choose furniture, drapes,
carpets, and other things. Then they buy the new furnishings and
arrange them in the home or office.

Furnishing a Kitchen

Furnishing a home is an experience you will be faced with sometime. In this project I want you to figure out the cost of furnishings for the kitchen of a home if you had $1600 to spend.

You will have to decide what you want in your kitchen, how much you will pay for each item and how you will make payments for these items. Remember! You must pay a 4% state sales tax on each item. Compute this chart of items purchased:

Place of Purchase	Item	Description	Price	Tax	Total Cost

Total Cost _____

How much will the furnishings cost if you pay cash for them? _____

_____

Figure out the cost if you paid $530 down and the balance (the remainder of the cost) in monthly payments of $52.05 for a period of two years. (This is an example of installment buying.)

How much will the furnishings cost if you pay for them in installments?

_____

How much more do the furnishings cost by buying them on the installment plan? _____

What are the advantages in paying cash for the items? _____

_____

What are the advantages in buying on the installment plan? _____

_____

YOU

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Comparative Home Shopping

"Comparing Prices"

COMPARING PRICES

When you earn your own living, you will need to be careful how you spend your check in order to get the maximum amount of goods for it as you can. Maximum means the most. When we talk about goods, we mean supplies which have been grown or manufactured.

Food is a goods. It can be grown in a garden or purchased in a supermarket or in a neighorhood grocery. Here is a list of several groceries and prices that were found in three different stores. Decide the total grocery price at Store I, II, III for the following grocery items:

ARTICLE		STORE I	STORE II	STORE III
pineapple		$ .59	$ .61	$ .63
lettuce		.20	.21	.22
celery		.15	.14	.16
carrots	2 lbs.	.35- 2 lbs.	.37 - 2 lbs.	.36
potatoes	100 lbs.	3.45-100 lbs.	3.55 - 100 lbs.	3.47
onions	lbs.	.10	.09 - lbs.	.10
tapioca	14 oz.	.49	.49	.49
dates	lbs.	.55	.56	.55
TOTALS		$	$	$

1. What is the cost at Store "I"? _____

2. What is the cost at Store "II"? _____

3. What is the cost at Store "III"? _____

4. What store cost the least? _____

5. Find the difference in prices between the following stores:

   "I" and "II" _____

   "I" and "III" _____

   "II" and "III" _____

COMPARING PRICES

Many families save money by buying household items at the store which offers the most reasonable prices for the same quality goods.

PRICES
-Sale Price-

ITEMS	DRUG	HARDWARE	COST DIFFERENCE
automatic drip coffee maker	$ 32.00	$ 38.88	$ _____
hand mixer	9.00	11.88	_____
can opener	9.00	11.88	_____
steam and dry iron	9.00	10.88	_____
space heater 1320 watts model 321220 Tropicaire	13.00	14.50	_____
Total	$	$	$

1. Since O: Drug was running a sale, their prices were much different from , O Hardware, who were not running a sale. Note the totals for each store's prices, and write here the total cost difference. _____

2. There is an old saying, "a penny saved, is a penny earned". Examine the difference in prices. What else could you buy with the money saved that you could not have had if you had purchased from the hardware that was not having a sale? _____

3 THINK CAREFULLY! Do you believe the old saying? If you did not care to buy anything else right away, what could you do with your money?
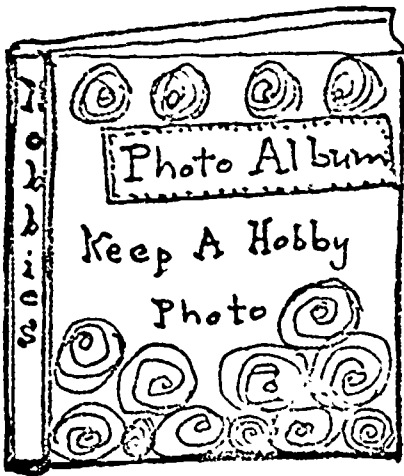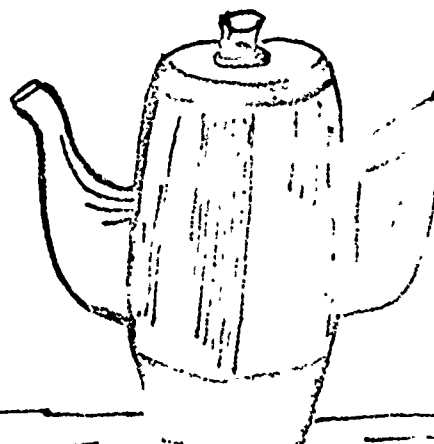
_____   _____

WAITING FOR A GOOD BUY

Linda always wanted a Singer sewing machine. She did not want many different kinds of stitches to begin with. She watched the prices for the simple, sturdy machine she wanted. The regular price was $269.00. She only had $200. which she had saved, so she decided that she couldn't have one unless a special buy came along.

About two months after she prices the model she wanted, she saw one in the window for $100.00 on special sale. A school had ordered too many and did not take delivery on this one. She was thrilled, yet she wanted a cabinet, also. An Early American style cabinet was usually priced at $125.00. For this sale, it would cost $98.00.

(a) How much money did Linda have in her checking account? _____

(b) How much was the regular price of the machine? _____

(c) How much was the regular price of the cabinet? _____

(d) How much was the regular price of both of them? _____

(e) How much was the sale price of the machine? _____

(f) How much was the sale price of the cabinet? _____

(g) What was the sale price of both of them? _____

(h) How much did Linda save? _____

(i) Did she have any money left over in the bank? _____   67

SAVE WHILE BECOMING A BETTER YOU!

Reg. Price	Sale Price	Savings
(Record the Prices)		

Hobbies are fun to record.

Reg. Price $2.99

Photo Album

Keep A Hobby Photo

Hobbies

Sale Price $1.99

Reg. Price	Sale Price	Savings
(Record the Prices)		

A good cook is always appreciated

Reg. Price $12.88

Sale Price $10.05

Reg. Price	Sale Price	Savings
(Record the Prices)		

Clean hair contributes to — Self Esteem.

Reg. Price $2.23

Head & Shoulders

Sale Price $1.48

A Clothing Store Manager Reduces Prices

Item	Reg. Price	Sale Price	You Save
Shoes	$9.99	$8.90	$ _____
Knit Top	$4.99	$3.44	$ _____
Golfer Jacket	$7.99	$6.88	$ _____
Bookbag	$6.99	$5.44	$ _____
Gloves	$ .97	$ .50	$ _____

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YOU

and Spending

Quantity Purchasing

"Buying in Quantity"

Getting the Most for Your Money

PENNY'S SUPER MARKET--Minneapolis

nge Juice	19¢ 6 oz. can	Occident Flour	69¢ 5 lb.
serves	79¢ 18 oz. jar	Betty Crocker Pudding	$1.00 3 lb. 17 oz.
ches	45¢ 29 oz. can	Chuck Steak	69¢ lb.
ssing	89¢ 16 oz. jar	Applesauce	79¢ 46 oz. jar
und Beef	99¢ extra lean	White Bread	$1.00

NATIONAL MARKET--Minneapolis

te Bread	89¢ 3 1½ lb. loaves	Occident Flour	69¢ 5 lb.
ck Steak	59¢ per lb.	Applesauce	79¢ 46 oz.
ssing	89¢ 32 oz. jar	Preserves	79¢ 18 oz.
und Beef	69¢ per lb.	Shortening	$1.49 per 3 lbs.
ches	49¢ 29 oz. can	Betty Crocker Pudding	33¢ per 17 oz.

rections: In column 1 list the items found in both stores. In column 2
write the name of the store where the item costs more. In
column three write the amount of money one saves by buying
at the lower priced store. Note--Look out! There are some
prices listed which could make you make mistakes if you do
not read the full description of the item.

ocery Item	Store with the Higher Price	AMOUNT SAVED BY CAREFUL BUYING

GETTING THE MOST FOR YOUR MONEY

Directions: Imagine that you have clipped 4 advertisements from the class-
ified section of your newspaper. Find these ads listed below. WHICH AD
OFFERS EACH GROCERY ITEM AT THE LOWEST PRICE? Put a check mark in front
of each best buy. There are 19 different items to find.

Corn	24¢ a can	Peas	21¢ a lb.
Cookies	25¢ a box	Bacon	53¢ a lb.
Fish Sticks	34¢ a box	Jelly	33¢ a jar
Peanut Butter	71¢ a jar	Coffee	94¢ a jar
Jelly	35¢ a jar	Cola	31¢ a qt.
Chicken	33¢ a lb.	Milk	24¢ a qt.
Flour	13¢ a lb.	Corn	25¢ a can
Ice Cream	70¢ a qt.	Peaches	41¢ a can
Apples	19¢ a lb.	Bananas	15¢ a lb.
Rice	31¢ a box	Beans	20¢ a lb.
Bread	27¢ a loaf	Flour	12¢ a lb.
Bacon	51¢ a lb.	Rice	32¢ a box
Peas	19¢ a lb.	Chicken	34¢ a lb.
Beans	19¢ a lb.	Apples	21¢ a lb.
Bread	28¢ a loaf	Chicken	31¢ a lb.
Fish sticks	33¢ a box	Peanut Butter	62¢ a jar
Cookies	23¢ a box	Cookies	27¢ a box
Beans	18¢ a lb.	Ice Cream	69¢ a qt.
Flour	14¢ a lb.	Coffee	99¢ a lb.
Chicken	32¢ a lb.	Fish sticks	36¢ a box
Peanut Butter	65¢ a jar	Cola	32¢ a qt.
Ice Cream	43¢ a qt.	Apples	25¢ a lb.
Peaches	43¢ a can	Jelly	32¢ a jar
Jelly	31¢ a jar	Bread	26¢ a loaf
Bananas	17¢ a lb.	Corn	22¢ a can
Cola	33¢ a qt.	Peas	20¢ a lb.

BUYING IN QUANTITY

Do you think that it would be
wise to buy more than one item
at a time to save money?

You can buy Yarn for 5 for $4.00.
The regular price is $1.29.

Directions: First find what 1 ball of yarn costs at regular price$ _____
Now multiply by 5 to decide how much five balls of _____
yarn would cost you. Then subtract the total cost of _____
the sale price yarn, from the from the total for the
other five balls of yarn. What do you get? _____

```
$ 1.29    (Regular price)
x   5     (Balls of yarn)
$ 6.45    (Total cost of 5 balls of yarn at regular price)
```

Subtracting the sale price of the five balls of yarn from the regular price,
would look like this in a problem:

```
$ 6.45    (The cost of five balls of yarn @ regular price)
-4.00     (Sale price of yarn)
$ 2.45    (Amount you save at the sale price)
```

Here is another problem:

Candy is advertised ten bars for $1.00 when
it was regularly selling for $.15 a bar.
How much would one save if he/she purchased
10 when they were on sale. How much if one
purchased 100 bars would be saved?

```
$ .15      (regular price one bar)
x 10       (number of bars)
$1.50      (total price of 10 bars)
- 1.00     (sale price)
$ .50      (amount one saves)
x 10       (saving $.50 on every 10 bars multiply by 10)
$5.00      (total amount saved on 100 bars)
```
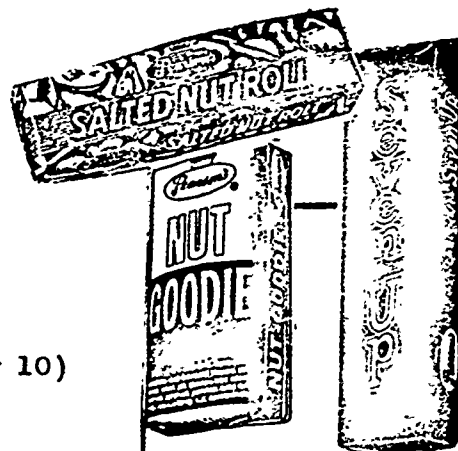
Buying items in larger quantities (by the case) is a saving.

Directions: Go to Prairie Market and find the single price of the following items and the price by the case. Fill in the following form.

ITEM	SINGLE ITEM PRICE	NUMBER IN CASE	CASE PRICE	YOU SAVE
Heinz Ketchup 14 oz Bottle				
Libby's Pears #2 Can				
Hunt's Tomato Paste Small Can				
Cock O'the Walk Peach Halves 29 oz Can				
Heinz Koshered Dill Pickles qt. jar				
Van Camp's Pork'n'Beans 16 oz Can				
Del Monte Chunk Tuna $6\frac{1}{2}$ oz Can				
Del Monte's Whole Kernel Corn 17 oz Can				
Libby's Sliced Green Beans 17 oz Can				
Hunt's Fruit Cocktail 300 Can				
Tide Detergent Giant Size				
Green Giant Peas 303 Can				
Libby's Tomato Juice 46 oz Can				

Total You Save _____

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Vacation Planning

"What A Vacation"

What a Vacation

The Black Hills of western South Dakota are beautiful. Very
few places in the United States can match the scenic beauty of the
Black Hills.

The Cresbards have heard much talk about the Hills. This year
they have decided to take their vacation in the Black Hills. The
Cresbards have 7 days and nights to spend on their vacation. Their
trip will start on Sunday and end the following Saturday.

Jake and Sarah Cresbard have two children, Tim and Joanne. So,
four people will be going on this trip. They will be staying in motels
and eating all their meals in cafes.

It is your job to completely plan the trip. You must decide the
route they will take to get to the Hills, the route they will take to
get back home, which cities they will sleep in, where they will eat their
meals, what to do each day of the vacation, and how much the entire trip
will cost.

Remember as you plan the trip you can use the days in whatever way
you want. If you decide not to do too much one day, that is fine. Since
the Cresbards are not wealthy and don't have a lot of money saved for
the trip, don't spend over $650 on this week of vacation.

To help plan the trip, use the following guides. They will be a
big help.

The Trip

1. Describe the route to get to the Hills.   (Name highways and towns
    they must go through.)

2. Describe the route used to come home from the Black Hills.

3. Miles and gas: Fill in the chart.

	Where did you start the day?	What did you do during the day?	Where did you end the day?	Miles traveled that day	Am't spent on gas
SUNDAY					
MONDAY					
TUESDAY					
WEDNESDAY					
THURSDAY					
FRIDAY					
SATURDAY					

Total miles _____

Total gas _____

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4. Meals: Fill in the chart.

	Number of Meals	Cost of Meals
SUNDAY		
MONDAY		
TUESDAY		
WEDNESDAY		
THURSDAY		
FRIDAY		
SATURDAY		

Total Cost _____

5. Sleeping: Fill in the chart.

	Where did you Sleep?	How much did it Cost?
SUNDAY		
MONDAY		
TUESDAY		
WEDNESDAY		
THURSDAY		
FRIDAY		
SATURDAY		

Total Cost _____

6. Amount spent on sightseeing.

To get into many of the attractions at the Hills, you must pay some money. For instance, to get into the Reptile Gardens costs about $2.50 per person. Estimate the amount you would spend each day to get into various attractions.

	Which Attractions	Cost
SUNDAY		
MONDAY		
TUESDAY		
WEDNESDAY		
THURSDAY		
FRIDAY		
SATURDAY		

Total Cost _____

7. Now that you know how much gas, eating, sleeping, and sightseeing will cost, can you think of anything else that we must pay for? If you can, list it below.

8. Which day were the most miles covered?

9. What is the average number of miles driven each day? _____

10. What is the total cost of the Black Hills trip? _____

11. Is this under the limit? If so, how much? _____

12. If each member of the family has to pay an equal amount of the cost how much would each person have to pay? _____

13. Tim mows lawns. He charges $1.50 per hour to mow lawns. If Tim works 8 hours a week on lawns, how much does he earn each week?

14. How many weeks would Tim have to work in order to pay for his share of the trip?

Vacations are fun. But, one must work many hours to pay for his vacation. Vacations do cost more money than a lot of people realize.

By the way, are you going to take a vacation next summer? (Remember to plan for it!)

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You as an Opinion Pollster

"Work in Pairs to Discover --
What Do People Think?"

Work in Paris to Discover--

"What Do People Think?"

Names _____

What have all heard of the Gallup poll surveys. In these surveys, people are asked how they feel about certain things. For this unit, you will look at some surveys and then you will conduct your own survey. For this project you will work in pairs.

Do the following items.

1. Cut out of a magazine or newspaper, two surveys or polls. You can use school newspapers, the Watertown Public Opinion, Time magazine, to cup up magazines and papers you find in the library.

2. Answer the following questions about each of the surveys. (Work together.)

Survey I

a. Which company conducted the survey?
b. What is the general topic of the survey?
c. How many people were questioned in the survey? _____
d. Is your opinion on the topic the same as the majority of those questioned? _____
e. What percent of the people questioned had no opinion? _____
    Do you find this percent surprising? _____
f. Do you think the results of the poll would be different if more or less people would have been questioned? _____
    How much different? _____

Survey II

a. Which company conducted the survey?
b. What is the general topic of the survey?
c. How many people were questioned in the survey? _____
d. Is your opinion on the topic the same as the majority of those questioned? _____
e. What percent of the people questioned had no opinion? _____
    Do you find this percent surprising? _____
f. Do you think the results of the poll would be different if more or less people would have been questioned? _____
    How much different? _____

3. The results of the polls are given as _____. Why do you think percentages are used instead of the actual number of responses?

4. Now that you have looked at two surveys, it is time to take your own survey. To do this, first pick a topic about which you want to find people's opinions. Together, the two of you should write six questions about the topic. The person answering the question should have to pick a certain response. Use either yes--no--no opinion answers or similar replies such as very favorable --ok-- unfavorable--terrible. Do not use a question like, "What is your opinion of a baseball?" unless you give them several choices from which one answer must be chosen.

5. Each person should then ask these questions to several people. One person asks questions to only men or boys and the second person asks only women or girls. A total of twenty-five people should be questioned in this survey.

6. Now that you have conducted the survey, you must record your answers in an easy-to-understand form. To do this, make a booklet with a cover. On page one of the book, write out question one. Then make a little table of responses for the women, showing how many people responded to each response. Do the same for responses of the man. Then combine the women and men to make a table of the total survey results. You will, then, have three tables of data.

On the same page, make a graph showing the results of the total responses for both sexes combined. You can choose whichever type of graph you want to make--a line graphy, a bar graph or a pictograph. Ask for help if you need it.

On page two, do the same thing with the second graph. The only change you should make is to use another type of graph than what you used on page one. Continue doing this for all six pages. Since there are three types of graphs and six pages, each type of graph will be used twice.

7. Now that you have completed the booklet, you have a complete record of your survey.

Using your booklet, write a one sentence summary of the response for each question:
    a.
    b.
    c.
    d.
    e.
    f.
    g.

8. Do you think the results of your poll would have been different if you had asked different people? _____ Explain.

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Occupations Related to Math

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Accountant
Airline Dispatcher
Airline Pilots
Agricultural Economist
Agricultural Research Worker
Architect
Astronmer

Baker
Banker
Baseball Player
Billing Clerk
Bill Collector
Boilermaker
Bricklayer
Broadcast Technician
Buyer

Carpenter
Cement Mason
Chemist
Claim Adjuster
Computer Operator
Cook
Credit Agent
Dentist
Dietician
Doctor
Draftsperson

Electrical Engineer
Electrician
Electroplater
Elevator Constructor
Environmental Scientist

FBI Agent
Flood Control Expert

Historian
Home Economist

Industrial Designer
Industrial Machinery Repairperson
Inhalation Therapist
Instrument Repairperson
Insurance Broker
Insurance Salesperson
Interior Decorator

Landscape Architect
Lather
Lighting Expert
Lineworker (Electric Power)

Mechanic
Medical Laboratory Worker
Medical Technologist
Medical X-Ray
Meter Reader
Millwright

Navigator
Nurse

Optomotrist
Paymaster
Pharmacist
Photographer
Physicist
Pipefitter
Pilot
Plasterer
Plumber
Podiatrist
Purchasing Agent
Psychologist

Real Estate Agent

Salesperson
Scientist
Seamstress
Sheet Metal Worker
Soil Conservationist
Statistician
Stenographer
Store Manager
Structural Iron Worker
Surveyor
System Analyst

Tailor
Teacher
Travel Agent

Underwriter
Urban Planner